

ENVIRONMENTAL ASSESSMENT
for
RECONSTRUCTION AND RESURFACING
CUNARD ROAD (NPS Route 6)
and GLADE CREEK ROAD (NPS Route 14)
at
NEW RIVER GORGE NATIONAL RIVER
FAYETTE AND RALEIGH COUNTIES, WEST VIRGINIA



Prepared by the
U.S. Department of Transportation
Federal Highway Administration
Eastern Federal Lands Highway Division

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National Park Service
New River Gorge National River

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National Environmental Policy Act (43 CFR 1500)

ABSTRACT

This Environmental Assessment (EA) addresses the plans of the National Park Service (NPS) to perform needed reconstruction and resurfacing improvements to Cunard Road and Glade Creek Road in Fayette and Raleigh Counties, West Virginia.

The NPS has several goals in selecting a preferred alternative. These goals include improving driving conditions and safety concerns on Cunard Road and improving drainage for Glade Creek Road. The preferred alternative also includes upgrading parking areas and pullouts, and stabilizing the structural aspects of both roads. The NPS would like to complete this work while minimizing impacts to the Park's natural and cultural resources.

This document determines which aspects of the proposed actions have potential for social, economic, or environmental impact. The review of a no action alternative is also presented. This document also identifies mitigation choices that may reduce harmful or unwanted impacts. The aim of the NPS is to select an alternative that adds to the safe and enjoyable experience of visitors, while maintaining the beauty and natural and cultural significance of the Park. Public involvement and coordination/consultation with other Government agencies is summarized throughout the document. Technical, planning and engineering assistance is being provided by the Federal Highway Administration (FHWA), Eastern Federal Lands Highway Division (EFLHD).

This document is prepared pursuant to the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA), Section 7 of the Endangered Species Act (ESA), the Clean Water Act (CWA), and Executive Orders protecting wetlands and floodplains.

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I. PURPOSE AND NEED FOR ACTION

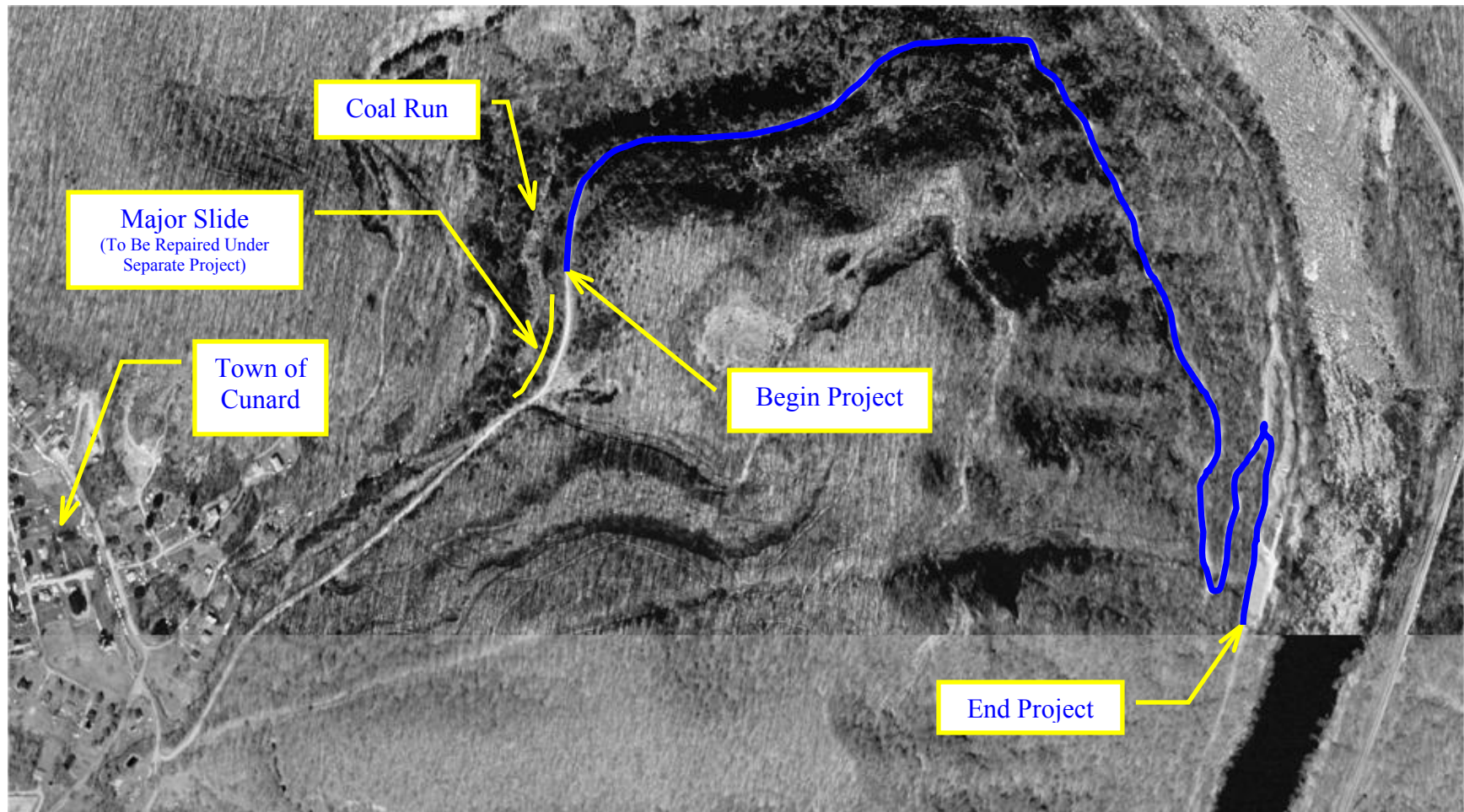
A. Location and Limits of Study Area

The New River Gorge National River (NERI) is located in southern West Virginia, 75 miles southeast of Charleston, West Virginia in Fayette, Raleigh, and Summers Counties. The Congress established NERI in 1978 "for the purpose of conserving and interpreting outstanding natural, scenic, and historic values and objects in and around the New River Gorge for the benefit and enjoyment of present and future generations." Recent legislation passed by Congress has expanded the boundaries of the Park. The current acreage is approximately 72,000. The Park and surrounding area are rich in cultural and natural history, with an abundance of scenic and recreational opportunities, including hiking, hunting, fishing, white-water rafting, and rock-climbing. The areas of proposed roadway reconstruction and resurfacing would be limited to two individual roads within the Park: Cunard Road and Glade Creek Road.

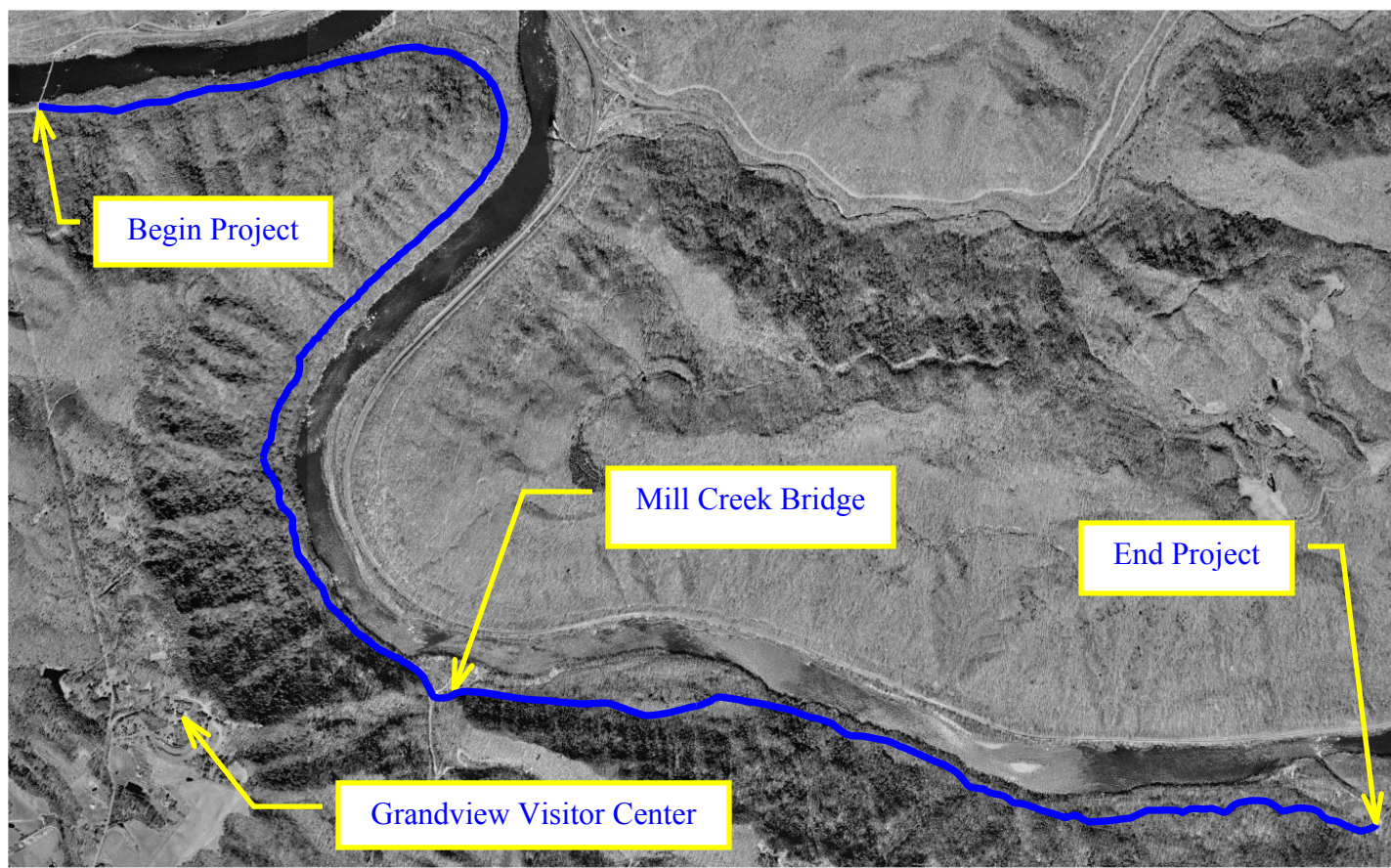
Location Map



Cunard Road Aerial View



Glade Creek Road Aerial View



B. Purpose and Need for the Action

The main function of NERI is to preserve the New River and its adjacent areas. Visitation at the river revolves around recreation, both commercial and private. The number of people using the Park has continually increased since it was first established in 1978. Normal wear and a severe storm in July of 2001 resulted in the deterioration of several roadways. Neither of the two roads under consideration in this document meets *National Park Service (NPS) Park Road Standards* for width of road.

Cunard Road has experienced a great increase in traffic since the Park was established, with an average daily traffic (ADT) of 500 in 2001 and a projected ADT of 750 for 2021, mostly due to commercial and private rafters using the road as access to New River. The 1.94-mile road, with a 15 mph posted speed limit, contains three gravel parking areas and seven dirt pullouts. Much of the road contains a concrete curb and gutter along the hillside. The gutter is raised from the road surface in many areas due to rutting and erosion. Buses and large vehicles travel the road, transporting rafters frequently between Memorial Day and Labor Day. There is a horse trail located along the route, and therefore some horse traffic is present. Much of the current road is single-lane with a 10.5-foot average width, which poses a problem for two-way traffic. The current surface of the road is gravel, which causes airborne dust that impacts visitors and the surrounding environment. There is a poor riding surface resulting from wheel action along the steep grades.



Gravel Parking Area at terminus of Cunard Road (Photo taken from parking area entrance). Note the large rafting vehicles.



Typical rafting vehicle in parking area at terminus of Cunard Road.



Typical Pullout on Cunard Road (pullout number 4)



Horse traffic along Cunard Road.



Beginning of single-lane on Cunard Road. Note: There is no line of sight to end of single-lane.



Typical section along single-lane portion of Cunard Road.



Poor surface due to wheel action on Cunard Road.

Glade Creek Road is a low volume (2001 ADT 340), gravel road primarily used as access to the river for fishing, boating, hiking, picnicking, and camping with a 20 mph posted speed limit. Twenty-five turnouts and three parking areas are located along the 5.7-mile route. Years of use and weather have resulted in a need for improvement upon

the existing road conditions. Due to extensive drainage problems, several slides ranging from 15 to 50 feet in length have occurred, resulting in unsafe driving conditions for vehicles traveling along the road. The existing ditches and culverts are not of a sufficient capacity to handle the flow of water that comes from the side of the mountain. A one-lane bridge supports 2-way traffic across Mill Creek. Alignment of the roadway approaching the bridge from either side is poor causing a sight distance problem for drivers. Since only one vehicle can cross the bridge at a time, a safety hazard exists when a driver cannot see a vehicle approaching from the other side.



Typical section along
Glade Creek Road



Typical Potholes on Glade
Creek Road.



Eroded Pipe Culvert on
Glade Creek Road



Mill Creek Bridge on
Glade Creek Road.



Oncoming view of Mill
Creek Bridge on Glade
Creek Road. Note the
poor sight distance.

C. Description of Proposed Action

Operational improvements for Cunard Road, its pullouts, and its parking area are being considered in order to improve pavement conditions and to maintain visitor access to the New River. Sections of the road are being considered for widening to improve traffic flow and safety.

Rehabilitation improvements for Glade Creek Road, its parking areas, and pullouts are being considered, in addition to slide repairs and modifying drainage conditions. Measures to improve safety along the road will be evaluated.

D. Decisions To Be Made

The National Environmental Policy Act of 1969 (NEPA) requires consideration of the environmental effects of proposed federal actions. This Environmental Assessment (EA) provides the required environmental, socioeconomic analysis for the proposed work. As part of the planning and analysis, this EA has been prepared to evaluate alternatives and options for accomplishing this work with the least impact to Park resources and Park visitors. The Eastern Federal Lands Highway Division (EFLHD) of the Federal Highway Administration (FHWA) has prepared this EA for the NPS.

The NPS intends to explore alternatives for performing the needed roadway improvements along Cunard Road and Glade Creek Road in NERI. After all alternatives have been fully evaluated and the public has had an opportunity to review and provide comment on the proposed action, the NPS will issue a decision on how they intend to proceed.

Coordination with the US Fish & Wildlife Service (USFWS) and the West Virginia Division of Natural Resources (DNR) must be completed before a decision is made.

E. Issues and Impact Topics

Specific impact topics were developed to address potential natural, cultural, and social impacts that might result from the proposed work. These topics are derived from the issues identified above and address federal laws, regulations and orders, NERI management documents, and NPS knowledge of limited or easily impacted resources. They are used to focus the information presented and discussed in the affected environment and environmental consequences sections. A brief rationale for the selection of each impact topic is given below.

1. Cultural Resources

The National Historic Preservation Act of 1966, the National Environmental Policy Act of 1969 (NEPA), the 1916 NPS Organic Act, NPS Management Policies, and NPS-28 require federal agencies to consider the effects of their proposed actions on cultural resources. Protection and preservation of cultural

resources at the Park are of critical importance and will be discussed as part of this analysis.

2. Biotic Communities

The 1969 National Environmental Policy Act (NEPA) calls for an examination of impacts on the components of affected ecosystems. NPS Management Policies (2001) require the protection of the natural abundance and diversity of all the Park's naturally occurring communities. Impacts to resources such as vegetation and wildlife are included in this topic and will be addressed for each alternative.

3. Special Status Species

Section 7 of the Endangered Species Act (ESA) directs all federal agencies to use their authority in furtherance of the purposes of the Act by carrying out programs for the conservation of rare, threatened, and endangered species. Federal agencies are required to consult with the U. S. Fish and Wildlife Service (FWS) to ensure that any action authorized, funded, and/or carried out by the agency does not jeopardize the continued existence of any listed species or critical habitat. NPS policy also requires examination of the impacts on state listed threatened, endangered, candidate, rare, declining, sensitive, and federal candidate species.

4. Water Quality/Wetlands

NPS Management Policies (1988) require protection of water quality consistent with the Clean Water Act (CWA). Since the proposed action has the potential to impact water quality through erosion and storm water runoff, this topic will be discussed further.

Executive Order 11990 (Protection of Wetlands) requires an examination of impacts to wetlands. Using vegetation, soils, and hydrology as evidence of wetland characteristics, no wetlands are anticipated to be impacted.

5. Visitor Use, Park Operations, and Public Safety

Proposed roadwork is anticipated to have an affect on visitors at NERI, with disruptions to traffic patterns during construction activities. Therefore, this topic will be included for analysis in this environmental assessment.

6. Socioeconomic Environment

The proposed reconstruction and resurfacing work may impact Park visitors, staff, and neighboring businesses and therefore will be covered as an impact topic in this document.

F. Definitions

1. Temporary impacts - Impacts anticipated occurring during construction only. Upon completion of the construction activities, conditions are likely to return to those that existed prior to construction.
2. Short-term impacts - Impacts that may extend past the construction period, but are not anticipated lasting more than a couple years.
3. Long-term impacts - Impacts that may extend past the construction period, and are anticipated lasting more than a couple years.
4. Negligible - Little or no impact (not measurable).
5. Minor - Changes or disruptions may occur, but does not result in a substantial resource impact.
6. Major - Easily defined and measurable. Results in a substantial resource impact.
7. Impairment - An impact that would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values.

G. Permits

The U.S. Army Corps of Engineers has regulated activities in the nation's waters since 1890. Until the 1960's, the primary purpose of the regulatory program was to protect navigation. Since then, as a result of laws and court decisions, the program has broadened to encompass the full public interest for both the protection and utilization of water resources. Regulatory authority and responsibilities of the Corps of Engineers includes Section 404 of the Clean Water Act (33 USC 1344). This includes regulation of the discharge of dredged material into waters of the United States, including both navigable waters and adjacent wetlands. In addition, Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) is regulated by the Corps of Engineers for activities in or affecting navigable waters. The actions proposed are anticipated to impact waters, which are considered waters of the United States. The proposed action is anticipated to be subject to U.S. Army Corps of Engineers review under the Section 404 regulatory program, therefore any required permits would be obtained prior to construction, if necessary.

The U.S. Fish and Wildlife Service (FWS) has been contacted with regard to the presence of federally listed threatened or endangered species within the study area. If any such species were known to inhabit the area, appropriate measures would be developed to protect the species from harm. In addition, coordination is ongoing with

the West Virginia Natural Heritage Program to ensure that state listed species within the Park are protected.

The Division of Water Resources developed and issued a General WV/NPDES Water Pollution Control Permit to regulate sediment laden storm water flowing into the waters of the State from discharges associated with construction activities. This General Permit was issued on November 5, 2002, became effective on December 5, 1998, and will expire on December 4, 2007. Any person proposing a construction activity, three (3) acres or greater of land disturbance in size, shall submit a site registration application form 45 days prior to commencing the operation. For projects that will disturb between 1 acre and less than 3 acres, the responsible party must submit a Notice of Intent (NOI) at least 10 days prior to starting earth disturbing activities.

II. DESCRIPTION OF ALTERNATIVES

The following is a description of the proposed alternatives, including the no action alternative, to address the need for roadway improvements within the Park. The descriptions, pictures, and drawings included below provide details on the proposed alternatives for each of the study areas.

A. Cunard Road

1. No Action Alternative

Under the No Action Alternative, NPS personnel would continue to maintain Cunard Road in its existing condition. None of the existing roadway would be reconstructed or resurfaced. Concerns regarding safety, visitor services, water quality, and Park operations would not be addressed. Existing concerns related to erosion control and vehicle access would not be addressed, except on a case-by-case basis and as funds became available.

2. Build Alternative

The proposed work would include reconstructing and resurfacing approximately 0.4 miles of Cunard Road, its parking areas, and pullouts. The travel way would be widened to 20-feet where possible. Improvements would also include resurfacing a 345-foot segment of Coal Run Road near its beginning at Cunard Road. Additionally, current timber beam parking delineation would be removed and replaced with concrete wheelstops and pavement markings. Construction activities would incorporate erosion and sediment control measures to minimize soils loss. Existing guardrail and drainage structures would be adjusted to accommodate proposed pavement dimensions. Emphasis would be placed on minimizing impacts to the surrounding vegetation and wildlife. The proposed road improvements would occur essentially on the existing alignment with some minor widening proposed. A staging area would be located on-site at the Trail Head parking area.

Preliminary quantity computations estimate that the project as proposed would involve approximately .2 acres of clearing and grubbing work. The road would be resurfaced with hot asphalt pavement.

B. Glade Creek Road

1. No Action Alternative

Under the No Action Alternative, NPS personnel would continue to maintain Glade Creek Road in its existing condition. None of the existing

roadway would be reconstructed or resurfaced. Concerns regarding safety, visitor services, water quality, and Park operations would not be addressed. The existing slides along the roadway would not be stabilized, thereby retaining the current safety concerns. Existing issues related to erosion control and vehicle access would not be addressed, except on a case-by-case basis and as funds become available.

2. Build Alternative

The proposed work would consist of reconditioning the gravel roadway, performing slide repair, and formalizing parking pulloffs along 5.7 miles of roadway and adjacent parking areas. Proposed improvements also include cleaning and spot-painting the bridge over Mill Creek, located approximately 3.5 miles from the beginning of Glade Creek Road, and modifying drainage conditions along the road. Wheel stops in parking areas would be removed and reset. Additional parking pulloffs would be constructed beyond the Mill Creek Bridge to meet visitor needs and to allow for passing of opposing traffic across the bridge. A traffic counter system would be installed along with warning and speed-limit signage. The current culverts would be replaced with larger, more adequate sized culverts. Reseeding would occur with native vegetation that is commonly found in the Park. All proposed activities should take into account the underground utilities along the mountain side of the road. Construction activities would incorporate erosion and sediment control measures to minimize soils loss. Emphasis would be placed on minimizing impacts to the surrounding vegetation and wildlife. Work would essentially be on the existing alignment and be designed to improve the existing condition of the roadway by adding aggregate base material to the surface and re-establishing the ditches. The staging area would be located on NPS property along Route 41 on the east side of Piney Creek.

Preliminary quantity computations estimate that the project as proposed would involve approximately 0.5 acres of clearing and grubbing work. Because the NPS would like to preserve the character of this road and maintain the current volume of traffic, asphalt paving this road is not being proposed.

C. Alternatives Considered but Rejected

1. *Maintain Cunard Road as Gravel*

This alternative was eliminated from further discussion due to the amount and type of traffic using the road. The traffic along the road contains a high percentage of large vehicles to transport rafts and rafters to the end of the road. Wheel action would continue to cause a poor riding surface along the steep grades and airborne dust would continue to impact private

residents on the adjacent property at the beginning of the road. Also, gravel roads require more maintenance than paved roads, which causes a greater cost and a greater need for labor. Other actions would be similar to the Build Alternative.

2. *Resurface Glade Creek Road as Asphalt*

This alternative was eliminated from further discussion because an increase in traffic volume that usually occurs when an unpaved road becomes paved is unwanted due to the fact that the road provides access to several popular fishing sites and a desire to maintain the character of the road. These sites need to remain as undisturbed as possible so that they can continue to offer an adequate fishing environment. An increase in usage is discouraged to maintain the visitor experience of a tranquil, serene environment.

III. IDENTIFICATION OF THE ENVIRONMENTALLY PREFERRED ALTERNATIVE

The environmentally preferred alternative is determined by applying the criteria from Section 2.7(D) of NPS DO-12. These are the same criteria outlined in the National Environmental Policy Act of 1969 (NEPA), which is guided by Council on Environmental Quality (CEQ) regulations. CEQ regulations provide direction that “[t]he environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA’s Section 101(b). Generally, this means the alternative that causes the least damage to the biological and physical environment. It also means the alternative that best protects, preserves, and enhances historic, cultural and natural resources.” [Question 6a, “Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations” (40 CFR 1500-1508), Federal Register Vol. 46, No. 55, 18026-18038, March 23, 1981].

A. Cunard Road

The Build Alternative has been selected as the most environmentally preferred alternative since it addresses the Park’s needs related to traffic structural stability, safety, accessibility, and soil erosion, while maximizing the protection of the Park’s cultural and natural resources. Should these concerns not be addressed, impacts to the visitor experience and local business operations may deteriorate. Although the Build Alternative would impact some vegetative resources, it is believed that through the use of best management practices, impacts to the natural environment would be minimized.

B. Glade Creek Road

The Build Alternative has been selected as the most environmentally preferred alternative since it addresses the Park needs related to safety and soil erosion, while maximizing the protection of the Park’s cultural and natural resources. Should these concerns not be addressed, impacts to the visitor experience and local business operations may deteriorate. Although the Build Alternative would impact some vegetative resources, it is believed that through the use of best management practices, impacts to the natural environment would be minimized.

IV. AFFECTED ENVIRONMENT

The New River is among the oldest rivers on the continent. It was virtually inaccessible until the construction of a railroad that opened in 1873. The railroad allowed access to the coal deposits within the gorge, which led to the development of the natural coal deposits. Over time the flourishing coal mining industry phased out leaving behind a scenic river and its tributaries. NERI joined the National Park system in 1978 when approximately 53 miles of the New River and 72,000 acres of surrounding mountainsides were set aside by the NPS to preserve and protect the cultural, natural, scenic, and recreational resources of the area. The area has a humid, continental climate characterized by sharp temperature contrasts. Daytime temperatures range from lows in the 20s (F) in January to highs in the 90s (F) in July. About 45 inches of precipitation is evenly distributed throughout the year. Total snowfall is around 30 inches. The proposed areas of work are located in the Lower Gorge near the town of Cunard and along the New River at the border of the Middle Gorge and the Glade Creek.

A. Natural Resources

1. Vegetation

The vegetation at Cunard Road is made up of hardwood forest consisting of silver maple, red maple, American sycamore, paw paw, river birch, elm, box elder, buckeye, beech, and paulownia. Some of the shrubs are mountain silverbell, musselwood, and spice bush. Other herbaceous plants in the area are nettles, fleabane, wild ginger, wild rose, phlox, and poison ivy. The large flat area at the base of Coal Run has a healthy representation of native West Virginia flora, particularly floodplain flora. In a survey conducted by the State Department of Natural Resources, a healthy population of mountain bittercress was also found.

The forest at Glade Creek Road is primarily mixed deciduous, consisting of dogwood, redbud, and species of oaks and maple. Historically, the forest was logged rather extensively, and most of the present growth represents second generation. Spread throughout the rim areas there are large stands of laurel and rhododendron thickets. Many common wildflowers also reside in the area.

2. Threatened and Endangered Species

According to the FWS, there are no federally listed endangered and threatened species that are likely to be adversely affected by the proposed projects (See Appendix). The WVDNR shows records of the rare Virginia mallow (*Sida hermaphrodita*) along Glade Creek Road. A small population of this species was identified near Mile Post 1 (Station # 76+00) during a walking survey. No rare, threatened, or endangered species are known to be on Cunard Road according to the WVDNR.

3. Birds and Wildlife

The New River and its tributaries comprise one of the largest and most significant warmwater stream fisheries in the state. Of the 58 species of fish identified in the New River, six are considered to be endemic – bigmouth chub, New River shiner, Kanawha minnow, and finescale saddled darter are among these. The river provides habitat for a variety of wildlife, such as raccoons, beavers, wild turkeys, deer, bear, squirrels, skunks, foxes, rabbits, and opossums. The area provides good woodland habitat for many different bird species, such as warblers, woodpeckers, thrushes, owls, turkey vultures, and ravens. Copperheads and timber rattlesnakes are also known to inhabit dry rock outcrops and open areas.

B. Physical Environment

1. Air Quality

For purposes of the Clean Air Act, the Environmental Protection Agency (EPA) has determined that Fayette and Raleigh Counties are attainment areas, i.e., pollution levels are below the National Ambient Air Quality Standards (NAAQS).

2. Hydrology/Water Quality/Wetlands

The New River is considered to be the second oldest river in the world, second only to the Nile River. The river is home to some of the best white water rafting in the country. The New River and its tributaries are also considered to be some of the best fishing areas in the state of West Virginia. Primarily the Bluestone Dam controls the flow of the river, which is just upstream from Hinton.

Water quality in the New River is classified as suitable for human contact such as swimming and boating, for fishing, and for agricultural and industrial uses. However, nonpoint pollution from erosion and uncontrolled runoff is a problem, especially during high volume discharge. Fecal coliform counts are high on occasion, and untreated sewage discharges from residential development occur throughout the park.

The tributaries involved with the two roads are Coal Run, Mill Creek, and Glade Creek. Coal Run runs along much of the length of Cunard Road at the base of the hill until it spills into the New River. Mill Creek runs under Glade Creek Road and along the side of the road for a short distance. Glade Creek is at the terminus of Glade Creek Road. Glade Creek is stocked by the WV Division of Natural Resources (DNR) once in February, bi-weekly during the months of March, April, and May and twice in October.

3. Geology/Soils

The projects are located within the Appalachian Plateau Physiographic Province and are underlain by the New River formation. This formation generally consists of interbedded layers of sandstones, shale, coal, and limestone, layered in relatively flat beds.

The valley bottom and lower slopes are dominated by Calvin-Gilpin soils, which are moderately fertile and well suited to forest growth but have severe engineering limitations because of erosion potential. Upper slopes and ridgetops contain Rockland-Dekalb-Gilpin soils, which have similar limitations.

4. Noise

The area is mostly serene and tranquil with the majority of noise being generated by vehicular traffic, railroad traffic, and human activity from recreational users.

C. Cultural Resources

Cultural resources in the New River Gorge area are primarily associated with mining and logging that occurred in the latter part of the 19th century and the early part of the 20th century. The construction of a railroad in 1873 opened up the Gorge to a flourishing coal mining industry and an extensive logging operation.

The railroad allowed access to the coal deposits within the gorge, which led to the development of the natural coal deposits. In the 1950's the flourishing coal mining industry phased out leaving behind a beautiful river and its tributaries.

The logging industry began to flourish in West Virginia in the 1880s. The forest of the New River Gorge and surrounding plateaus were extensively logged during the peak of the timber industry in the early 1900s. This heavily wooded region now consists entirely of second-growth timber. A 1916 report by the West Virginia Geological Survey states that Raleigh County had one of the heaviest stands of timber in the state.

A review by the Park's Cultural Resources Specialist was conducted on Cunard Road and Glade Creek Road to assure conformity with the requirements of Section 106. This review indicated that there were no historic or archeological properties present at either location.

D. Visitor Use and Experience/Park Operations

NERI was established in 1978 to preserve the environment of the New River and adjacent areas so that visitors could continue to use and enjoy the Park for years

to come. The Park is opened every day of the year, with free access to both roads. Peak visitation along the two roads is between Memorial Day and Labor Day. Each of the sites has its own unique function.

Cunard Road provides access to the river for mostly commercial and private rafters. Safety is a high priority due to a combination of factors. Traffic volume has greatly increased in recent years to a current ADT of approximately 500 for a posted speed limit of 15 mph. There are narrow sections of roadway, some of which do not support 2-way traffic, causing traffic to yield for opposing traffic. The riding surface is poor, resulting from wheel action on gravel along steep grades, which causes a bumpy ride. This last factor is a maintenance concern as well. The gravel surface generates dust that is causing problems for the private residents at the beginning of the road.

Glade Creek Road provides access to the river for fishermen and others seeking recreational activities such as hiking and camping. The road leads to several trails and campgrounds within the Glade Creek area. Current conditions along Glade Creek Road include poor drainage, which has resulted in several small slides that need repair. The slides pose a safety concern for visitors traveling along the edge of the slope with no area of recovery and only temporary wooden posts acting as guards. The road has a posted speed limit of 20 mph.

E. Socio-Economic Environment

The surrounding areas to the roads consist of mostly forested land or private property. The roads mainly provide access for recreational purposes such as rafting, hiking, camping, and fishing. An increase in tourism occurs between the holidays of Memorial Day and Labor Day.

The following table displays some of the socioeconomic data available from the U.S. Census Bureau for Fayette and Raleigh Counties and the state of West Virginia.

People QuickFacts	Fayette County	Raleigh County	West Virginia
Population, 2001 estimate	47,089	78,548	1,801,916
Population percent change, April 1, 2000-July 1, 2001	-1.0%	-0.8%	-0.4%
Population, 2000	47,579	79,220	1,808,344
Population, percent change, 1990 to 2000	-0.8%	3.1%	0.8%
Persons under 5 years old, percent, 2000	5.6%	5.5%	5.6%
Persons under 18 years old, percent, 2000	21.7%	21.5%	22.3%
Persons 65 years old and over, percent, 2000	16.4%	15.4%	15.3%
White persons, percent, 2000 (a)	92.7%	89.6%	95.0%
Black or African American persons, percent, 2000 (a)	5.6%	8.5%	3.2%
American Indian and Alaska Native persons, percent, 2000 (a)	0.3%	0.2%	0.2%
Asian persons, percent, 2000 (a)	0.3%	0.7%	0.5%

People QuickFacts	Fayette County	Raleigh County	West Virginia
Native Hawaiian and Other Pacific Islander, percent, 2000 (a)	Z	Z	Z
Persons reporting some other race, percent, 2000 (a)	0.1%	0.1%	0.2%
Persons reporting two or more races, percent, 2000	0.9%	0.8%	0.9%
Female persons, percent, 2000	50.5%	50.8%	51.4%
Persons of Hispanic or Latino origin, percent, 2000 (b)	0.7%	0.9%	0.7%
White persons, not of Hispanic/Latino origin, percent, 2000	92.2%	88.9%	94.6%
High school graduates, persons 25 years and over, 1990	17,889	31,883	773,239
College graduates, persons 25 years and over, 1990	2,771	5,406	144,518
Housing units, 2000	21,616	35,678	844,623
Homeownership rate, 2000	77.2%	76.5%	75.2%
Households, 2000	18,945	31,793	736,481
Persons per household, 2000	2.41	2.38	2.40
Households with persons under 18, percent, 2000	32.7%	31.6%	31.8%
Median household money income, 1997 model-based estimate	\$23,578	\$27,864	\$27,432
Persons below poverty, percent, 1997 model-based estimate	21.2%	17.4%	16.8%
Children below poverty, percent, 1997 model-based estimate	31.2%	25.7%	24.7%
Business QuickFacts	Fayette County	Raleigh County	West Virginia
Private nonfarm establishments, 1999	951	2,019	41,451
Private nonfarm employment, 1999	9,818	24,640	545,495
Private nonfarm employment, percent change 1990-1999	7.5%	20.0%	13.1%
Nonemployer establishments, 1999	1,894	3,357	81,212
Manufacturers shipments, 1997 (\$1000)	169,353	164,863	18,293,309
Retail sales, 1997 (\$1000)	328,630	826,776	14,057,933
Retail sales per capita, 1997	\$6,882	\$10,460	\$7,743
Minority-owned firms, percent of total, 1997	F	7.0%	3.8%
Women-owned firms, percent of total, 1997	30.5%	27.3%	27.1%
Housing units authorized by building permits, 2000	89	89	3,763
Federal funds and grants, 2001 (\$1000)	328,807	559,565	12,540,808
Local government employment - full-time equivalent, 1997	1,398	2,261	59,926
Geography QuickFacts	Fayette County	Raleigh County	West Virginia
Land area, 2000 (square miles)	664	607	24,078
Persons per square mile, 2000	71.7	130.5	75.1
Metropolitan Area	None	None	

(a) Includes persons reporting only one race.

(b) Hispanics may be of any race, so also are included in applicable race categories.

FN: Footnote on this item for this area in place of data

NA: Not available

F: Fewer than 100 firm

X: Not applicable

D: Suppressed to avoid disclosure of confidential information

S: Suppressed; does not meet publication standards

Z: Value greater than zero but less than half unit of measure shown

V. ENVIRONMENTAL EFFECTS FOR CUNARD ROAD

A. Natural Resources

1. Vegetation

a. No Action Alternative

If permanent measures are not put in place, the area may become more susceptible to landslides, resulting in some loss of vegetation.

b. Build Alternative

The proposed widening of the road would make it necessary to remove some vegetation and trees. It is estimated that .2 acres of the wooded habitat within the Park would be disturbed by the proposed work. Similar habitat is present throughout the Park and would remain protected under current management plans; therefore, the overall impact to vegetation would be minor.

c. Conclusions

Some impact to vegetative resources is anticipated under the No Action Alternative due erosion that will most likely occur. Under the Build Alternative, minor removal of vegetation would be required for the widening of the roadway. The existing species abundance at NERI would remain approximately the same. No impairment to the vegetation within the Park would occur.

2. Threatened and Endangered Species

a. No Action Alternative

No change from existing conditions.

b. Build Alternative

By letter dated June 12, 2002, the FWS concurs with the FHWA's determination that the proposed road projects are not likely to adversely affect federally listed threatened and endangered species. (See appendix).

The WVDNR has no known records of any Rare, Threatened, and Endangered species in the area of Cunard Road as stated in a letter dated June 11, 2002 (See appendix).

c. Conclusions

No impact to federally or state listed threatened, endangered, or otherwise noteworthy species would occur under either alternative.

3. Birds and Wildlife

a. No Action Alternative

No change from existing conditions.

b. Build Alternative

Birds and other wildlife may avoid potential habitat adjacent to the project site because of noise and other factors; however, since the proposed project occurs along the alignment of the existing roadway, it is likely that these areas are already avoided to some extent and no additional impact may result. The proposed widening of the road would make it necessary to remove some vegetation and trees that support wildlife. It is estimated that .2 acres of the wooded habitat within the Park would be disturbed by the proposed work. Similar habitat is present throughout the Park and would remain protected under current management plans; therefore, the overall impact to birds and wildlife would be minor.

c. Conclusions

No long-term adverse impacts to birds or other wildlife species are anticipated under either alternative. No impairment to the Park's birds or wildlife species would occur.

B. Physical Environment

1. Air Quality

a. No Action Alternative

Under the No Action Alternative, air quality levels would continue to be affected in areas where buses must idle to allow oncoming traffic to pass. This has slightly higher emissions than free-flowing traffic. Since the roadway has a gravel surface, dust would continue to be a problem affecting air quality levels.

b. Build Alternative

Under the Build Alternative, air quality levels may improve slightly due to decreased congestion on the single lane, two-way portion of the road that causes results in higher emissions than free flowing-traffic on a two-lane road. Paving the road would reduce dust and airborne particles.

c. Conclusions

Under the No Action Alternative, air quality levels would continue to be somewhat raised due to slightly higher emissions resulting from congestion on the single lane, two-way portion of the road. During construction, temporary, minor impacts to air quality levels may occur under the Build Alternative; however, no adverse, long-term impacts are anticipated. Under the Build Alternative, localized air quality may improve due to reduced traffic congestion and dust. No impairment to the Park's air quality would occur.

2. Hydrology/Water Quality/Wetlands

a. No Action Alternative

No change from existing conditions.

b. Build Alternative

Potential short-term impacts to water quality due to erosion may exist during construction; however, best management practices would be utilized to minimize these potential impacts. Should this alternative be selected, a sediment and erosion control plan, including the use of best management practices, would be prepared by the FHWA and included in the final construction plans. All roadway reconstruction and repaving work would be designed to facilitate and improve localized drainage.

c. Conclusions

Water quality, hydrology, and wetlands would not be affected under the No Action Alternative. Under the Build Alternative, there are potential effects to the water quality; however, these impacts would be minimized with the implementation of a sediment and erosion control plan. No impairment to the Park's water quality, hydrology, or wetlands would occur.

3. Geology/Soils

a. No Action Alternative

The geology/soils of the area would remain unchanged under the No Action alternative.

b. Build Alternative

Since the proposed construction consists primarily of reconstruction and rehabilitation efforts, there would be no new geology introduced to the Park.

c. Conclusions

Neither the No Action nor the Build Alternative would affect the present condition of the geology or soils. No impairment to the Park's geology or soils would occur

4. Noise

a. No Action Alternative

Under the No Action Alternative, the road surface would remain gravel. Gravel surface roads create more noise from vehicle traffic than asphalt surfaced roads. Gravel surfaces also create more noise inside the vehicle causing a negative effect to driver experience.

b. Build Alternative

Under the Build Alternative, existing noise levels would temporarily increase during construction. Park visitors, employees, and residents in the immediate vicinity of the project area would be subject to the minor noise pollution generated from construction. After construction, noise levels would be expected to decrease from current levels due to the change in surface from gravel to asphalt.

c. Conclusions

The No Action Alternative would maintain current noise levels. Under the Build Alternative, a minor increase in noise levels would occur during construction. After construction, noise levels would be expected to decrease from current levels due to the change in surface from gravel to asphalt. No impairment to noise levels within the Park would occur.

C. Cultural Resources

Potential impacts on cultural resources must be addressed under the provisions for assessing effects outlined in 36 CFR, par 800, regulations issued by the Advisory Council on Historic Preservation implementing Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C. 470 et seq.). Under the “Criteria of Effect” (36 CFR Part 800.9[a]), federal undertakings are considered to have an effect when they alter the character, integrity, or use of a cultural resource, or the qualities that qualify a property for listing on the National Register of Historic Places.

The NPS has consulted with the West Virginia State Historic Preservation Officer (WV SHPO) to ensure that the NPS operation, management, and administration provide for the treatment of cultural resources in accordance with the intent of NPS policies and with section 106, 110, and 111 of the NHPA, as stated in the 1990 Nationwide programmatic agreement among the NPS, the Advisory Council on Historic Preservation (ACHP), and the National Conference of State Historic Preservation Officers. Under stipulation D of the programmatic agreement, all undertakings that are not considered programmatic exclusions, or are not included in the plans reviewed under the former programmatic memoranda of agreement, would be reviewed in accordance with 36 CFR, Part 800 and NPS-28, *Cultural Resource Management*.

Completion of compliance with Section 106 of the National Historic Preservation Act would be carried out by the NPS in accordance with the National Park Service’s Cultural Resources Management Guidelines (DO-28), and appropriate documentation and consultations undertaken.

1. No Action Alternative

No change from existing conditions.

2. Build Alternative

Based on the limited proposed construction activities, the NPS has determined that the proposed work should have no adverse effect on cultural resources since the road would remain essentially on the existing alignment. The Park has implemented section 106 of the NHPA for the proposed projects for both roads.

3. Conclusions

Under the No Action Alternative, cultural resources would remain undisturbed. It has been determined by the Cultural Resources Staff at the Park that the Build Alternative would have no adverse effect on cultural resources, due to the adherence to the current road alignment (See Appendix). No impairment to cultural resources would occur under the Build Alternative.

D. Visitor Use and Experience/Park Operations

1. No Action Alternative

No change from existing conditions.

2. Build Alternative

The Build Alternative would better accommodate the traffic using the road. Vehicles would be more easily managed along the roadway, increasing safety, visitor experience, and park operations. The surface of the road would be changed to asphalt pavement from gravel. The new surface will cause less dust, less noise, and a smoother ride for visitors.

3. Conclusions

Under the No Action Alternative, visitor use and experience and Park operations would remain unchanged. The Build Alternative offers better traffic conditions along the road that would increase safety, visitor experience, and park operations. No impairment to the visitor experience or the use of the park would occur under the Build Alternative.

E. Socioeconomic Impacts

1. No Action Alternative

Under the No Action Alternative, the single-lane, two-way section of the road would continue to pose problems with safety for vehicles using the road, especially the larger vehicles used by rafting companies and other park visitors.

2. Build Alternative

Under the Build Alternative, accessibility for larger vehicles would greatly improve due to the expansion of the road width to accommodate two lanes of traffic. This would help both local rafting companies that use the road daily with large buses to transport rafts and rafters and other park visitors.

3. Conclusions

Under the No Action Alternative, the socioeconomic environment would remain essentially the same. The Build Alternative offers a solution to safety problems dealing with the single-lane, two-way section of the road by widening it. No impairment to the socioeconomic environment of the road would occur.

F. Cumulative Impacts

Cumulative impacts are those impacts on the environment that result from the incremental effect of the project when considered with interrelated past, present, and reasonable foreseeable future projects. Future park projects include the upcoming Emergency Rehabilitation Project that would repair the large slide that has occurred on Cunard Road.

1. No Action Alternative

The No Action Alternative would have little impact on future park development plans. However, the continued degradation of the roadway would do little to improve rider comfort and visitor enjoyment. Park maintenance expenses can be expected to increase in order to keep the road functioning in a safe manner. The unaddressed safety concerns may lead to future liabilities in the Park.

2. Build Alternative

The total vegetation impacts for both roads equals .7 acres, and is considered minor due to the abundance of similar type vegetation found within the Park. Reconstruction and resurfacing efforts would be fazed to minimize disruptions to park visitors and recreational commercial activities.

Impacts associated with the removal of vegetation and water quality would not be significant, nor would the short-term disruptions to the wildlife species. Public and commercial use would be enhanced given a choice of safer transportation routes; however, minor inconveniences to the public would occur under each of the proposed projects during construction.

3. Conclusions

The No Action Alternative maintains the present condition of the Park, with the exception of increased future maintenance expenditures. Under the Build Alternative the cumulative affects are minimal, and adverse impacts would only occur during the rehabilitation and resurfacing effort and are not likely to continue once construction is complete.

G. Comparison of Alternatives for Cunard Road

The following chart summarizes and compares the likely results of implementing the No Action Alternative and the Build Alternative as they relate to the environment.

Factor	No Action Alternative	Build Alternative
Vegetation	The road may become more susceptible to landslides, resulting in some loss of vegetation.	Limited vegetation removal and clearing would occur in areas proposed for reconstruction. A total of .2 acres would be impacted by the project. Impacts on vegetation would be expected to be minor and short term.
Special Status Species	No change from the existing conditions.	The proposed project is not likely to affect any Special Status Species according to letters from the FWS (June 12, 2002) and WVDNR (June 12, 2002).
Birds & Wildlife	No change from the existing conditions.	Birds and other wildlife may avoid habitat within and adjacent to the proposed project site; however, since the site occurs along the alignment of the existing roadway, it is likely that these areas are already avoided to some extent and no additional impact may result. Similar habitat is present throughout the Park and would remain protected under current management plans; therefore, the overall impact to birds and wildlife would be minor.
Air Quality	Air quality levels would continue to be elevated due to idling traffic on the single-lane, two-way portion of the road.	Air quality levels are anticipated to improve somewhat due to decreased congestion on the single lane, two-way portion of the road.
Hydrology/ Water Quality/ Wetlands	No change from the existing conditions.	Potential impacts would be mitigated through the development and implementation of sediment and erosion control plan and best management practices.
Soils/Geology	No change from the existing conditions.	Some earth disturbance would be required to perform the roadway reconstruction activities. No major or long-term adverse impacts are anticipated.
Noise	The road surface would remain gravel, creating more noise than a paved road would.	Minor temporary impacts are anticipated during construction. A decrease in noise levels would be anticipated due to the change in surface from gravel to asphalt.
Cultural Resources	No change from existing conditions.	No major effects to cultural resources are anticipated.

Factor	No Action Alternative	Build Alternative
Visitor Use and Experience Park Operation:	No change from existing conditions.	Vehicles would be more easily managed along the roadway, increasing safety, visitor experience, and park operations. The new surface would cause less dust, less noise, and a smoother ride for visitors.
Socioeconomic Impacts	The single-lane, two-way section of the road would continue to pose problems with safety for vehicles using the road, especially the larger vehicles used by rafting companies and other park visitors.	Accessibility for larger vehicles would greatly improve due to the expansion of the road width to accommodate two lanes of traffic. This would help both local rafting companies that use the road daily with large buses to transport rafts and rafters and other park visitors.
Cumulative Impacts	Safety concerns and deterioration of the roads would continue. High maintenance costs are expected.	Minor, temporary impacts to park visitors and commercial recreational activities are likely during construction. No long-term environmental affects are anticipated.

VI. ENVIRONMENTAL EFFECTS FOR GLADE CREEK ROAD

A. Natural Resources

1. Vegetation

a. No Action Alternative

If permanent measures are not put in place, the area may become more susceptible to landslides, resulting in some loss of vegetation.

b. Build Alternative

The proposed widening of the road and repair of the slide areas would make it necessary to remove some vegetation and trees. It is estimated that .5 acres of the wooded habitat within the Park would be disturbed by the proposed work. Similar habitat is present throughout the Park and would remain protected under current management plans; therefore, the overall impact to vegetation would be minor.

c. Conclusions

Some impact to vegetative resources is anticipated under the No Action Alternative due to an increase in susceptibility to slides that will most likely continue to occur. Under the Build Alternative, minor removal of vegetation would be required for the widening of the roadway. The existing species abundance at NERI would remain approximately the same. No impairment to the vegetation within the Park would occur.

2. Threatened and Endangered Species

a. No Action Alternative

No change from existing conditions.

b. Build Alternative

The FWS concurs with the NPS that the proposed road projects are not likely to adversely affect federally listed threatened and endangered species in a letter dated June 12, 2002 (see appendix).

Virginia mallow (*Sida hermaphrodita*), which is listed as globally rare by the state of West Virginia, is located in a small area near MP 1 (Station # 76+00) of Glade Creek Road beyond the existing

shoulder. During construction, this population may be protected temporarily by installing fencing to prevent disturbance and minimize impacts to the species.

c. Conclusions

No impact to federally listed threatened and endangered species would occur under either alternative. Under the build alternative, impact to the state listed Virginia mallow would be minimized through mitigation during construction. No impairment to threatened, endangered or otherwise noteworthy species would occur.

3. Birds and Wildlife

a. No Action Alternative

No change from existing conditions.

b. Build Alternative

Birds and other wildlife may avoid potential habitat adjacent to the project site because of noise and other factors; however, since the proposed project occurs along the alignment of the existing roadway, it is likely that these areas are already avoided to some extent and no additional impact may result. The proposed slide repair for the road would make it necessary to remove some vegetation and trees that support wildlife. It is estimated that 0.5 acres of the wooded habitat within the park would be disturbed by the proposed work. Similar habitat is present throughout the Park and would remain protected under current management plans; therefore, the overall impact to birds and wildlife would be minor.

c. Conclusions

No long-term adverse impacts to birds or other wildlife species are anticipated under either alternative. No impairment to the Park's birds or wildlife species would occur.

B. Physical Environment

1. Air Quality

a. No Action Alternative

No change from the existing conditions is expected.

b. Build Alternative

Under the Build Alternative, air quality levels would remain essentially the same. The temporary air quality impacts from construction are expected to be minor. Construction activities would be conducted in accordance with FHWA's *Standard Specifications for Construction of Roads on Federal Highway Projects, 1996 (FP-96)* and would require compliance with applicable local, state, and federal regulations. The Build Alternative would not add new sources of air pollution. Therefore, there are no adverse air quality impacts associated with this alternative.

c. Conclusions

Under the No Action Alternative, air quality levels would remain essentially the same. During construction, temporary, minor impacts to air quality levels may occur under the Build Alternative; however, no adverse, long-term impacts are anticipated and air quality would continue to be essentially at the same levels. No impairment to the Park's air quality would occur.

2. Hydrology/Water Quality/Wetlands

a. No Action Alternative

No change from existing conditions.

b. Build Alternative

Potential short-term impacts to water quality due to erosion may exist during construction; however, best management practices would be utilized to minimize these potential impacts. Should this alternative be selected, a sediment and erosion control plan, including the use of best management practices, would be prepared by the FHWA and included in the final construction plans. All roadway reconstruction and repaving work would be designed to facilitate and improve localized drainage.

c. Conclusions

Water quality, hydrology, and wetlands would not be affected under the No Action Alternative. Under the Build Alternative, there are potential effects to the water quality; however, these impacts would be minimized with the implementation of a sediment and erosion control plan. No impairment to the Park's water quality, hydrology, or wetlands would occur.

3. Geology/Soils

a. No Action Alternative

The geology/soils of the area would remain unchanged under the No Action alternative.

b. Build Alternative

Since the proposed construction consists primarily of reconstruction and rehabilitation efforts, there would be no new geology introduced to the Park.

c. Conclusions

Neither the No Action nor the Build Alternative would affect the present condition of the geology or soils. No impairment to the Park's geology or soils would occur.

4. Noise

a. No Action Alternative

No change from existing conditions.

b. Build Alternative

Existing noise levels would temporarily increase during construction. Park visitors, employees, and residents in the immediate vicinity of the project area would be subject to the minor noise pollution generated from construction. After construction, noise levels would be expected to return to normal levels.

c. Conclusions

The No Action Alternative would maintain current noise levels. Under the Build Alternative, a minor increase in noise levels would occur temporarily during construction. After construction, noise levels would be expected to return to normal levels. No impairment to noise levels within the Park would occur.

C. Cultural Resources

Potential impacts on cultural resources must be addressed under the provisions for assessing effects outlined in 36 CFR, par 800, regulations issued by the Advisory Council on Historic Preservation implementing section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C. 470 et seq.). Under the “Criteria of Effect” (36 CFR Part 800.9[a]), federal undertakings are considered to have an effect when they alter the character, integrity, or use of a cultural resource, or the qualities that qualify a property for listing on the National Register of Historic Places.

The NPS has consulted with the West Virginia State Historic Preservation Office (WV SHPO) to ensure that the NPS operation, management, and administration provide for the site’s cultural resources in accordance with the intent of NPS policies and with section 106, 110, and 111 of the NHPA, as stated in the 1990 programmatic agreement among the NPS, the Advisory Council on Historic Preservation (ACHO), and the National Conference of State Historic Preservation Officers. Under stipulation D of the programmatic agreement, all undertakings that are not considered programmatic exclusions, or are not included in the plans reviewed under the former programmatic memoranda of agreement, would be reviewed in accordance with 36 CFR, Part 800 and NPS-28, *Cultural Resource Management*.

Completion of compliance with Section 106 of the National Historic Preservation Act would be carried out by the NPS in accordance with the National Park Service’s Cultural Resources Management Guidelines (DO-28), and appropriate documentation and consultations undertaken.

1. No Action Alternative

No change from existing conditions.

2. Build Alternative

Based on the limited proposed construction activities, the NPS has determined that the proposed work should have no adverse effect on cultural resources since the road would remain essentially on the existing alignment. The Park has completed documentation for Section 106 of the NHPA for the proposed work (See appendix).

3. Conclusions

Under the No Action Alternative, cultural resources would remain undisturbed. It has been determined that the Build Alternative would have no adverse effect on cultural resources, due to the adherence to the current road alignment. No impairment to cultural resources would occur under the Build Alternative.

D. Visitor Use and Experience/Park Operations

1. No Action Alternative

No change from existing conditions.

2. Build Alternative

Under the Build Alternative, safety would be increased due to the proposed repair of several slides along the road. Emphasis would be placed on retaining the rural characteristics of the road and keeping its natural canopy overhead.



Typical view of canopy along roadway.

3. Conclusions

Under the no Action Alternative, visitor use and experience and Park operations would remain unchanged. The Build Alternative offers better conditions involving visitor safety and improved aesthetics due to drainage improvements. No impairments to visitor experience or park operations would occur.

E. Socioeconomic Impacts

1. No Action Alternative

No change from existing conditions.

2. Build Alternative

Temporary effects might be encountered for the Build Alternative during construction, but no adverse socioeconomic impacts are anticipated with this alternative.

3. Conclusions

Under the No Action Alternative, the socioeconomic environment would remain essentially the same. Under the Build Alternative, temporary effects might occur during construction, but there are no adverse impacts associated with the alternative. No impairment to the socioeconomic environment of the road would occur.

F. Cumulative Impacts

Cumulative impacts are those impacts on the environment that result from the incremental effect of the project when considered with interrelated past, present, and reasonable foreseeable future projects.

1. No Action Alternative

The No Action Alternative would have little impact on future park development plans. However, the continued degradation of the roadway would do little to improve rider comfort and visitor enjoyment. Park maintenance expenses can be expected to increase in order to keep the road functioning in a safe manner. The unaddressed safety concerns may lead to future liabilities in the park.

2. Build Alternative

The total vegetation impacts for both roads equals .7 acres, and is considered minor due to the abundance of similar type vegetation found within the Park. Reconstruction and resurfacing efforts would be phased to minimize disruptions to park visitors and recreational commercial activities.

Impacts associated with the removal of vegetation and water quality would not be significant, nor would the short-term disruptions to the wildlife species. Public and commercial use would be enhanced given a choice of safer transportation routes; however, minor inconveniences to the public would occur under each of the proposed projects during construction.

3. Conclusions

The No Action Alternative maintains the present condition of the park, with the exception of increased future maintenance expenditures. Under the Build Alternative the cumulative affects are minimal, and adverse impacts would only occur during the rehabilitation and resurfacing effort and are not likely to continue once construction is complete.

G. Comparison of Alternatives for Glade Creek Road

The following chart summarizes and compares the likely results of implementing the No Action Alternative and the Build Alternative as they relate to the environment.

Factor	No Action Alternative	Build Alternative
Vegetation	If permanent measures are not put into place, the area may become more susceptible to landslides, resulting in some loss of vegetation.	Limited vegetation removal and clearing would occur in areas proposed for reconstruction. A total of .5 acres would be impacted by the project. Impacts on vegetation would be expected to be minor and short term.
Special Status Species	No change from the existing conditions.	The proposed project is not likely to affect any Special Status Species according to the FWS (June 12, 2002). Mitigation would be performed during construction to protect Virginia Mallow along the roadside. Virginia Mallow is listed as globally rare by the state of West Virginia.
Birds & Wildlife	No change from the existing conditions.	Birds and other wildlife may avoid habitat within and adjacent to the proposed project site; however, since the site occurs along the alignment of the existing roadway, it is likely that these areas are already avoided to some extent and no additional impact may result. Similar habitat is present throughout the Park and would remain protected under current management plans; therefore, the overall impact to birds and wildlife would be minor.
Air Quality	No change from the existing conditions.	Minor temporary impacts may occur during construction. No adverse air quality impacts are anticipated after construction.
Water Quality	No change from the existing conditions.	Potential impacts would be mitigated through the development and implementation of sediment and erosion control plan and best management practices.
Soils/Geology	No change from the existing conditions.	Some earth disturbance would be required to perform the roadway reconstruction activities. No major or long-term adverse impacts are anticipated.
Noise	No change from the existing conditions.	Minor temporary impacts are anticipated during construction. After construction, noise levels would be expected to return to normal levels.

Factor	No Action Alternative	Build Alternative
Cultural Resources	No change from the existing conditions.	No major affects to cultural resources are anticipated.
Visitor Use and Experience/ Park Operations	No change from the existing conditions.	Safety would be increased due to the repair of several slides along the road. Emphasis would be placed on retaining the rural characteristics of the road and keeping its natural canopy overhead.
Socioeconomic Impacts	No change from the existing conditions.	Temporary effects might be encountered during construction, but there are no adverse socioeconomic impacts associated with this alternative.
Cumulative Impacts	Safety concerns and deterioration of the roads would continue. High maintenance costs are expected.	Minor, temporary impacts are likely during construction. No long-term environmental affects are anticipated.

VII. MITIGATION

A. Threatened and Endangered Species

The final construction plans would include directions and specifications to the Contractor for placing a temporary barrier around the location of the State listed rare Virginia Mallow to minimize disturbance to this small population.

B. Hydrology/Water Quality

A sediment and erosion control plan would be prepared and included in the final construction plans.

C. Visitor Use and Experience/Park Operations

Construction would be staged according to a schedule that would impact visitors as little as possible during peak visitation periods.

D. Socioeconomic Impacts

Construction schedules would be sensitive to commercial recreational activities associated with Cunard Road. This could include planning construction activities during the off-season and perform construction activities during off peak hours in season.

VIII. ENVIRONMENTAL COMMITMENTS

A. Unavoidable Adverse Environmental Effects

No substantial unavoidable adverse environmental effects are anticipated.

B. Local Short-Term Uses and Maintenance/Enhancement of Long-Term Productivity

Short-term maintenance costs would decline if the proposed reconstruction and rehabilitation work occurs in the near future. As a result, the Park may allocate more time and personnel to the protection of the Park's more prominent cultural and natural resources.

C. Natural or Depletable Resources

The use of some natural resources would be required under the Build Alternative in order to complete construction operations, however no natural resources would be depleted. The quantity of materials in comparison to those readily available would be negligible.

D. Energy Requirements and Conservation

The preferred alternative would be expected to provide some benefits in terms of energy conservation because reduced traffic congestion along Cunard Road would result in fewer idling vehicles and less gasoline use.

IX. COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS

The 1999 Transportation Equity Act for the 21st Century (TEA-21) authorized funds for the Federal Lands Highway Program (FLHP), which distributes funds from the federal motor fuel tax revenues for the construction and rehabilitation of federal roads, including roads in units of the National Park System. This Act includes funding under the Public Lands Highway Discretionary Program for roads accessing and serving federal lands. It also includes funding under the Emergency Relief Program for roads that have suffered serious damage as a result of a natural disaster. The FHWA is coordinating the design and construction of these roads in cooperation with the NPS. This design and construction of the proposed work will occur using Public Lands Highway Discretionary funds and Emergency Relief funds.

The proposed action to reconstruct and resurface Cunard Road and Glade Creek Road is entirely consistent with the NERI management documents.

A. *National Environmental Policy Act (NEPA)*

This Environmental Assessment (EA) and resultant decision documents provide disclosure of the decision-making process and potential environmental consequences of the alternatives. This EA will be available for a 30-day public review and comment period, after which the NPS will decide if the impacts from the proposed action are significant. If the NPS determines that the impacts are significant, an Environmental Impact Statement (EIS) will be prepared. If an EIS is not required, the NPS's Northeast Regional Director may sign a Finding of No Significant Impact (FONSI). Together this EA and the FONSI would conclude the NEPA compliance for this project.

All comments and/or questions can be directed to:

Calvin Hite, Superintendent
New River Gorge National River
P.O. Box 246
104 Main St.
Glen Jean, WV 25846-0246

B. *Endangered Species Act of 1973*

Section 7 of the Endangered Species Act (ESA) directs all federal agencies to use their authority in furtherance of the purposes of the Act by carrying out programs for the conservation of rare, threatened, and endangered species. Federal agencies are required to consult with the U. S. Fish and Wildlife Service (FWS) to ensure that any actions authorized, funded, and/or carried out by the agency does not jeopardize the continued existence of any listed species or critical habitat.

Informal consultation pursuant to the ESA was initiated on May 30, 2002, when a letter was sent to the U. S. Fish and Wildlife Service inquiring whether any federal or state listed or candidate threatened or endangered plant or animal species or any other special status plant or animal species occur in the project area. The FWS responded with a letter June 12, 2002, concurring that the proposed road projects are not likely to adversely affect federally listed endangered and threatened species.

C. *Clean Water Act of 1972*

This Act seeks to restore and maintain the chemical, physical, and biological integrity of the nation's water by a variety of means. Section 404 of the Act directs wetlands protection by authorizing the Army Corps of Engineers to prohibit or regulate, through a permit process, discharge of dredged or fill material into the waters of the United States, including wetlands. Actions described in this document comply with the requirements of Section 404 of the Clean Water Act and all other applicable federal, state, and local agencies.

Water quality in the project area would be protected by the implementation of erosion and sediment controls, such as silt fencing, straw bales, and sediment traps, as needed. Reseeding and mulching would quickly stabilize disturbed areas. Staff at the FHWA would prepare the Erosion and Sediment Control Plan for inclusion in the construction plans.

D. *National Historic Preservation Act of 1966*

This Act requires federal agencies to establish programs for evaluating and nominating properties to the National Historic Register of Historic Places, and to consider the effects of undertaking a proposal on listed or eligible properties. Section 106 mandates that federal agencies take into account the effects of their actions on properties listed or eligible and to give the Advisory Council on Historic Preservation a reasonable opportunity to comment on said actions, if appropriate.

The NPS will coordinate with the West Virginia State Historic Preservation Officer (WV SHPO) and complete roadwork according to National Register of Historic Places standards and criteria. All ground disturbing activities associated with the project would be reviewed for archeological needs. Completion of compliance with Section 106 of the National Historic Preservation Act has been carried out in accordance with the National Park Service's Cultural Resources Management Guidelines (RM-18), and appropriate documentation and consultations undertaken.

Although no adverse effects to cultural resources are anticipated with the implementation of the proposed action, measures would be taken to ensure that adequate protection and consideration of cultural resources are carried out throughout the design and construction phases of the proposed project.

E. *The National Park Service Organic Act of August 25, 1916*

This Act states that the fundamental purpose of national parks is “to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.” The preferred alternative is supportive of this Act because it is the least intrusive on the natural and historic environment, and maintains the scenic viewshed within the Park.

F. *Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*

This Executive Order requires federal agencies to promote “nondiscrimination in federal programs substantially affecting human health and the environment.” In response to this direction, federal agencies must implement actions to identify and address disproportionately high and adverse human health or environmental effects of their programs, policies and activities on minority and low-income populations. The proposed project is located within the boundaries of the National River and would not cause the displacement of any residents, nor would it eliminate jobs, low wage or otherwise. The proposed project would not affect low income and minority populations. The project therefore is in compliance with this Executive Order.

G. Compliance with State and Local Government Regulations

The Build Alternatives area of disturbance does not exceed the Division of Water Resources threshold to trigger NPDES reporting. A copy of the Sediment and Erosion Plan will be required to be sent to the Southern Soil Conservation District.

X. LIST OF PREPARERS AND REVIEWERS

The following individuals contributed to the development of the document:

Federal Highway Administration

Jack Van Dop, Environmental Compliance Specialist
Brigitte A. Azran, Environmental Compliance Engineer
Nathan Becknell, Engineering Student Trainee
Kevin Rose, Environmental Protection Specialist
Tom Shifflett, Project Manager
Byron Betts, Highway Engineer
Khalid Mohamed, Geotechnical Engineer

National Park Service

Calvin Hite, Superintendent, New River Gorge National River
Mike Hunter, Deputy Superintendent, New River Gorge National River
Charles Ross, Facility Manager, New River Gorge National River
Ken Stephens, Resource Specialist, New River Gorge National River
David N. Fuerst, Cultural Resource Specialist, New River Gorge National River

XI. Coordination

As required by NPS policies and planning documents, it is the Park's objective to work with state, federal, and local governmental and private organizations to ensure that the Park and its programs are coordinated with theirs, and are supportive of their objectives, as far as proper management of the Park permits, and that their programs are similarly supportive of Park programs.

Consultation and coordination have occurred with numerous agencies for the development of the alternatives and preparation of the EA. The following people, organizations, and agencies were contacted for information, which assisted in identifying important issues, developing alternatives, and analyzing impacts:

U.S. Fish and Wildlife Service

West Virginia Natural Heritage Program

State Historic Preservation Officer

U.S. Army Corps of Engineers

In order to give the public and all interested parties a chance to review the EA, it will be noticed for public comment for a minimum of 30 days through local newspapers. During this 30-day period, the EA will be available for review at the New River Gorge National River Visitors Center, the Fayette County Public Library (531 Summit Street, Oak Hill, WV 25901), the Raleigh County Public Library (221 North Kanawha Street, Beckley, WV 25801), and on the World Wide Web at <http://www.epl.fhwa.dot.gov/planning/nepa/index.htm>. Copies of the EA will also be sent to the West Virginia State Clearinghouse and to applicable federal, state, and local agencies for review and comment.

XII. REFERENCES

Development Concept Plan Interpretive – Cunard – New River Gorge National River. United States Department of the Interior, National Park Service, Denver Service Center, Denver, Colorado. June 1990.

Development Concept Plan Interpretive – Glade Creek – New River Gorge National River. United States Department of the Interior, National Park Service, Denver Service Center, Denver, Colorado. June 1990.

Development Concept Plan Interpretive Prospectus Environmental Assessment – Grandview – New River Gorge National River. United States Department of the Interior, National Park Service, Denver Service Center, Denver, Colorado. March 1999.

New River Gorge National River Engineering Study. Federal Highway Administration, Eastern Federal Lands Highway Division, Sterling, Virginia. May 1998.

XIII. Appendix – Documentation of Agency Consultation

- FHWA letter to the Fish and Wildlife Service dated May 30, 2002 requesting a review of the project area and concurrence that the proposed action is not likely to affect federally listed or proposed-for-listing species and is in compliance with the Endangered Species Act of 1973.

Fish and Wildlife Service response to FHWA dated June 12, 2002.

- FHWA letter to the West Virginia Department of Natural Resources dated May 30, 2002 requesting comments and information on the project area with respect to any species listed as endangered or threatened.

West Virginia Department of Natural Resources response to FHWA dated June 11, 2002.

- New River Gorge National River – Assessment of actions having an effect on Cultural Resources. Section 106 determination “No historic or archeological properties are present” at the Cunard and Glade Creek Roads.

New River Gorge National River response dated April 25, 2001.

Refer to: HFPP-15

U.S. Fish & Wildlife Service
West Virginia Ecological Services Field Office
694 Beverly Pike
Elkins, WV 26241

Dear Sir or Madam:

In cooperation with the National Park Service (NPS), the Eastern Federal Lands Highway Division (EFLHD), of the Federal Highway Administration (FHWA), is preparing an environmental assessment (EA) for the reconstruction and resurfacing of three roads within New River Gorge National River in Fayette and Raleigh Counties, West Virginia. Improvements are proposed for Cunard, Glade Creek, and Turkey Spur Roads.

Work on Cunard Road would consist of reconstructing and resurfacing 1.94 miles of roadway, parking areas and pullouts. Improvements include repairing a slide that occurred as a result of the storm of July 8, 2001. The slide deposited material into Coal Run Creek, causing the stream to shift. This project will remove slide material from the stream, construct a retaining wall to stabilize the slope, and restore the original alignment of the stream. Additionally, a short segment of Coal Run Road will be resurfaced. All proposed road improvements would occur essentially on the existing alignment with some minor widening proposed. Please refer to the enclosed Preliminary Plans for more information.

Work on Glade Creek Road would consist of reconditioning the gravel roadway, slide repair, and the formalizing of parking pulloffs along 5.7 miles of roadway and adjacent parking areas. Improvements also include cleaning and spot-painting the bridge over Glade Creek. Work is essentially on the existing alignment and designed to improve the existing condition of the roadway by adding aggregate base material to the surface and re-establishing the ditches.

Work on Turkey Spur Road would consist of reconstructing and resurfacing between 1 and 1.2 miles of roadway, construction of a new 30-car parking area, and drainage improvements. Work is essentially on the existing alignment in previously disturbed areas where the pavement is in poor condition. Some earth disturbance and vegetation removal may be required for construction of the parking area.

Previously, records have indicated that there are no federally-listed threatened or endangered species in the proposed project area, except for the transient bald eagle (*Haliaeetus leucocephalus*). Although several listed species are present within the New River Gorge National River, it is our understanding from discussions with Park resource personnel that this project to reconstruct and resurface Cunard, Glade Creek, and Turkey Spur Roads is not likely to affect any federally-listed threatened or endangered species.

We request your concurrence with our finding that the proposed action is not likely to affect federally-listed or proposed-for-listing species, and that the proposed action is in compliance with the Endangered Species Act of 1973.

If you determine that any federally-listed species may be present or affected by the proposed project, please provide any restrictions or mitigation requirements that should be included in the final project plans and specifications in order to ensure that this project does not adversely affect any federally-listed threatened or endangered species.

Enclosed please find a general vicinity map and photos for the proposed project area. Once the Environmental Assessment has been prepared, we will provide your office with a copy of the document for review and comment. Questions concerning this matter should be directed to Ms. Brigitte Azran, Environmental Compliance Engineer, at 703-404-6283.

Sincerely,

/S/ Alan T. Teikari May 30, 2002

Alan T. Teikari
Planning and Programming Engineer

Enclosures

cc:

Mr. Calvin Hite, Superintendent, New River Gorge National River, Glen Jean, WV
Mr. Robert Holzheimer, FLHP Coordinator, Northeast Region, NPS, Boston, MA



United States Department of the Interior

FISH AND WILDLIFE SERVICE



West Virginia Field Office
694 Beverly Pike
Elkins, West Virginia 26241

JUN 12 2002

Mr. Alan T. Teikari
U.S. Department of Transportation
Federal Highway Administration
21400 Ridgeway Circle
Sterling, Virginia 20166-6511

Dear Mr. Teikari:

This responds to your letter dated May 30, 2002, regarding the potential impacts of three proposed road improvement projects on wetlands and federally listed endangered and threatened species. The National Park Service (NPS) in cooperation with your agency is proposing to reconstruct and resurface three roads within the New River Gorge National River in Fayette and Raleigh Counties, West Virginia. Improvements are proposed along 1.94 miles of the Cunard Road, 5.7 miles of the Glade Creek Road, and between 1.0 and 1.2 miles of the Turkey Spur Road.

The U.S. Fish and Wildlife Service (Service) concurs with the NPS that the proposed road projects are not likely to adversely affect federally listed endangered and threatened species. Therefore, no Biological Assessment or further Section 7 consultation under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) is required with the Service. Should the project plan change, or if additional information on listed and proposed species becomes available, this determination may be reconsidered. A compilation of federally listed endangered and threatened species in West Virginia is enclosed for your information.

A portion of the Cunard Road project involves stream work in Coal Run. Every effort to reduce disturbance and runoff to Coal Run and the New River should be employed. Definitive determinations of the presence of waters of the United States, including wetlands, and the need for permits, if any, are made by the U.S. Army Corps of Engineers. They may be contacted at: Huntington District, Regulatory Branch, 502 Eighth Street, Huntington, West Virginia 25701, telephone (304)529-5710.

If you have any questions regarding this letter, please have your staff contact William A. Tolin of my staff, or contact me directly, at (304) 636-6586, or at the letterhead address.

Sincerely,

Jeffrey K. Towner

Jeffrey K. Towner
Field Supervisor

Enclosure

Refer to: HFPP-15

Ms. Barbara Sargent
West Virginia Department of Natural Resources
Non-game Wild Life Heritage Program
P.O. Box 67
Elkins, WV 26241

Dear Ms. Sargent:

In cooperation with the National Park Service (NPS), the Eastern Federal Lands Highway Division (EFLHD), of the Federal Highway Administration (FHWA), is preparing an environmental assessment (EA) for the reconstruction and resurfacing of three roads within New River Gorge National River in Fayette and Raleigh Counties, West Virginia. Improvements are proposed for Cunard, Glade Creek, and Turkey Spur Roads.

Work on Cunard Road would consist of reconstructing and resurfacing 1.94 miles of roadway, parking areas, and pullouts. Improvements include repairing a slide that occurred as a result of the storm of July 8, 2001. The slide deposited material into Coal Run Creek, causing the stream to shift. This project will remove slide material from the stream, construct a retaining wall to stabilize the slope, and restore the original alignment of the stream. Additionally, a short segment of Coal Run Road will be resurfaced. All proposed road improvements would occur essentially on the existing alignment with some minor widening proposed. Please refer to the enclosed Preliminary Plans for more information.

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Work on Turkey Spur Road would consist of reconstructing and resurfacing between 1 and 1.2 miles of roadway, construction of a new 30-car parking area, and drainage improvements. Work is essentially on the existing alignment in previously disturbed areas where the pavement is in poor condition. Some earth disturbance and vegetation removal may be required for construction of the parking area.

Previously, records have indicated that there are no federally-listed threatened or endangered species in the proposed project area, except for the transient bald eagle (*Haliaeetus leucocephalus*). Although several listed species are present within the New River Gorge National River, it is our understanding from discussions with Park resource personnel that this project to reconstruct and resurface Cunard, Glade Creek, and Turkey Spur Roads is not likely to affect any federally-listed threatened or endangered species.

We request comments from your agency on this proposed project. Please provide information in regard to any potential impact that this project might have on any species listed as endangered or threatened. If possible, please identify specific areas where concerns are present and include any required or suggested measures to avoid or minimize impacts.

Enclosed please find a general vicinity map and photos for the proposed project area. Once the Environmental Assessment has been prepared, we will provide your office with a copy of the document for review and comment. Questions concerning this matter should be directed to Ms. Brigitte Azran, Environmental Compliance Engineer, at 703-404-6283.

Sincerely,

/S/ Alan T. Teikari May 30, 2002

Alan T. Teikari
Planning and Programming Engineer

Enclosures

cc:

Mr. Calvin Hite, Superintendent, New River Gorge National River, Glen Jean, WV
Mr. Robert Holzheimer, FLHP Coordinator, Northeast Region, NPS, Boston, MA



DIVISION OF NATURAL RESOURCES

Wildlife Resources Section

Operations Center

P.O. Box 67

Elkins, West Virginia 26241-3235

Telephone (304) 637-0245

Fax (304) 637-0250

Bob Wise
Governor

Ed Hamrick
Director

June 11, 2002

Mr. Alan T. Teikari
U.S. Department of Transportation
Federal Highway Administration
21400 Ridgetop Circle
Sterling, VA 20166-6511

Dear Mr. Teikari:

We have reviewed our files for information on rare, threatened and endangered (RTE) species in for the proposed improvements to Cunard, Glade Creek, and Turkey Spur roads in the New River Gorge National River.

We do have a record for the globally rare Virginia mallow (*Sida hermaphrodita*) from along Glade Creek Road (see enclosed map). Impacts to this species should be avoided. We have no known records of any RTE species in the areas of Cunard or Turkey spur roads.

This response is based on information currently available and should not be considered a comprehensive survey of the area under review.

Thank you for your inquiry, and should you have any questions please feel free to call upon us.

Sincerely,

Barbara Sargent
Environmental Resources Specialist
Wildlife Diversity Program
Wildlife Resources Section

enclosure